GETIN TECHNOLOGIES

KOVILPATTI (HEAD OFFICE) - 8925831826 | VIRUDHUNAGAR - 8925831828 | TIRUNELVELI- 8925831821 | TUTICORIN - 8925831824 | COIMBATORE - 8925831822 | BANGALORE - 8925831823 | CHENNAI - 8925831821

COURSE NAME: AWS DEVOPS TRAINING

Module 2

Visit our website for Course Fees and Course Duration

Placement Eligibility:

Eligible: Any Bachelor Degree, Any Master Degree, MBA

No Eligible: Diploma

Class Mode:

Classroom | Online | Recorded Session | AI Session

If you have Completed Course, You want only Placements
+91 8925831829

Training Partnership with

Placement Partnership with

Head Office Address: Door No: 971G/6, 1st Floor, Kalki Street, Manthithoppu Road, Krishna Nagar, Kovilpatti - 628502.

GST No: 33ABAFG2025J1ZV **Website:** www.getintech.in **Email:** enquiry@getintech.in

AWS DevOps Module 2 SYLLABUS

Linux Fundamentals:

Installation and Initialization

- **Installation, Package Selection**

- **Anatomy of a Kickstart File, Command line**

- **Introduction to Bash Shell**

- **System Initialization, Starting the Boot Process: GRUB**

Boot and Package Management

- **Configuring services to run at boot**

- **Securing single-user mode (SU login)**

- **Shutting down and rebooting the system**

- **RPM Package Manager, Installing and Removing Software, Updating a Kernel RPM**

- **Yum Command set, Install packages by using yum**

- **Apt-get command set, Apt-cache package management**

User Administration

- **Understanding different types of groups and creation of groups**

- **Creation of users in different groups**

- **Understanding Passwd, Shadow Files**

- **Understanding password aging**

- **Creation of quotas for users, groups and file systems**

- **Understanding users security files**

- **The different commands for Monitoring the users**

- **TROUBLESHOOTING**

- **Automation of jobs – Cron, at**

Run levels

- **Understanding the different types of run-levels**

- **Understanding different types of shutdown commands**

- **Understanding run control scripts**

- **Understanding the different types**

Overview of the Service Protocols

- **FTP**

- **DHCP**

- **DNS**

- **Apache**

- **Samba**

- **LVM**

Why Cloud ?

- **Why Cloud and What is Cloud Computing?**

- **Identify the features and benefits of cloud computing**

- **Different types of Cloud Computing deployment model**

- **Public Cloud, Private Cloud, Hybrid Cloud**

- **Virtualization – An essential in cloud**

- **Virtualization in Cloud model**

- **Different types of virtualization**

- **Hypervisor – Benefits**

- **Different types of services and its difference in Cloud computing**

- **IaaS, PaaS, SaaS**

- **Importance of scaling in cloud computing**

- **Different types of scaling and its applications**

- **Issues we overcome using cloud and applications**

- **Cost model that we use in cloud computing**

AWS:

AWS – An overview

- **Describe the features of AWS**

- **The features of AWS marketplace**

- **Describe the features of Amazon Compute Services**

- **Describe the features of Amazon Storage Services**

- **Describe the features of Amazon Network Services**

- **Describe the features of Amazon Database services**

- **Describe about various services in AWS**

- **Global Infrastructure – Regions and Availability Zones**

- **Create a free tier account in AWS and onboarding**

- **Introduction AWS management console**

Understand Identity Access Management (IAM) of AWS

- **Protect your AWS by different authentication system**

- **Password policies set for users**

- **AWS User Account and Groups in detail**

- **Creating custom policies in AWS**

- **Introduction about Roles and its use**

- **Creating Roles and associating policies**

- **Creating programmatic access and management console access for users**

- **Associating policies to the user and groups**

EC2 Instance

- **Describe AMI and AWS Marketplace templates**

- **Launch a basic EC2 instance**

- **Different types of Instances Reserved, On-demand, Spot, Dedicated**

- **Security groups and tags for EC2 instance**

- **Public key – Private key introduction and protecting EC2 with keys**

- **Attaching and detaching EBS volumes**

- **Launch an ec2 instance from an AMI**

- **Create custom AMI and working with different region**

- **Make use of amazon EBS volume and create snapshots**

- **Manage the configuration of your application**

- **Deploying a new instance from the created AMI**

Auto-scaling

- **Get Started with Auto Scaling Using the Console**

- **Creating Launch configurations and make use of it for autoscaling groups**

- **Maintain a Fixed Number of Running EC2 Instances**

- **Dynamic Scaling**

- **The lifecycle of autoscaling**

- **Policies of autoscaling**

Load Balancing

- **Introduction to Loadbalancer (ELB)**

- **Different types of Load Balancer in AWS**

- **Application Load balancer**

- **Network Load balancer**

- **Classic Load balancer**

- **Migrating classic load balancer to new load balancer**

- **Components and types of load balancing**

EBS (Elastic Block Storage)

- **Create EBS volumes**

- **Delete EBS Volumes**

- **Attach and detach EBS volumes with EC2 instance**

- **Creating and deleting snapshots**

Object Storage in Cloud

- **Understanding S3 durability and redundancy**

- **Introduction about S3 Buckets**

- **How S3 Uploading works and how to Download**

- **How to S3 Permissions**

- **How to implement S3 Object Versioning S3 Lifecycle Policies**

- **Storage Gateway**

- **Import Export**

- **S3 Transfer Acceleration**

- **Glacier storage**

CloudFront

- **Describing cloud front**

- **Creating a cloud front distribution**

- **Hosting a website of cloud front distribution**

- **Implementing global restrictions**

- **Configuring origins and behaviors**

Route 53

- **Describe Hosted zones and Domain name understanding**

- **How to create hosted zones**

- **Hosting a website with custom domain name**

- **Understanding routing policies**

AWS Security Management

- **Describing Security Practices for Cloud Deployment**

- **AWS Shared Responsibilities and Securities**

- **Importance of Cloud Trail**

- **Describing Trust advisor**

Amazon Virtual Private Cloud (VPC)

- **Introduction to Amazon Virtual Private Cloud (VPC).**

- **VPC Advantages and understanding IP addressing CIDR**

- **Default and Non-default VPC**

- **Different Components in VPC**

- **Describe, create, and manage Amazon Virtual Private Cloud**

- **Amazon VPC, Private Subnet, and Public Subnet**

- **AWS Networking, Security Groups, and Network ACLs**

- **Configuration and management of VPN connectivity**

- **Subnet and Subnet Mask**

Relational Database Service (RDS)

- **Introduction to RDS**

- **Different database services of AWS: Amazon RDS, Dynamo DB, Redshift etc.**

- **Create MYSQL RDS Instance, Oracle RDS Instance, MS SQL RDS Instance**

- **Configuring the database**

- **Configuring backups**

- **Configuring the maintenance windows**

- **Connecting to the database**

DynamoDB

- **Creating a dynamo dB**

- **Adding data manually**

- **Learn about strong and eventual consistency**

- **Calculating Read write consistency**

- **Configuring alarms**

Monitoring Services

- **Knowledge on Cloud watch – A monitoring service**

- **Create and Configuring Monitoring services**

- **How to perform Setting thresholds and Configuring actions**

- **Creating a cloud watch alarm**

- **Getting statistics for ec2 instances**

- **Monitoring other AWS services**

- **Configuring Notifications**

- **Integrating cloud watch with Autoscaling**

Application Services – An Overview

- **What is SNS**

- **Creating a topic**

- **Create subscription**

- **Subscribed to the subscription**

- **SQS & SES**

- **Lambda and Elastic Beanstalk**

AWS Troubleshooting

- **Troubleshooting EC2 instance**

- **Troubleshooting using Cloud watch**

- **Troubleshooting using ELB**

- **Troubleshooting by using Cloud front**

AWS Architecture and Design

- **Backup and Disaster Recovery**

- **How to manage Disaster Recovery and Backups**

- **Best Practice for DR and Backups**

- **AWS High Availability Design**

DevOps:

Introduction to DevOps

- **History of DevOps**

- **DevOps principles**

- **Benefits of DevOps**

- **DevOps tools and technologies.**

Source Code Management:

- **GIT**
- **GITHUB**

Continuous Integration and Continuous Deployment

- **Jenkins**

Configuration Management

- **Ansible**

Containerization

- **Docker**

Monitoring and Logging

- **Splunk**
- **Prometheus**

Infrastructure Automation

- **Terraform**

Case studies and projects

- **Real-world use cases of DevOps principles and practices, and projects to apply what you have learne**

Agile and DevOps:

- **Agile methodologies**
- **Agile and DevOps integration**
- **Agile tools.**

Case studies and projects

- **Real-world use cases of DevOps principles and practices, and projects to apply what you have learned.**

Kubernetes

Kubernetes Introduction

- **Kubernetes Evolution**
- **What is Kubernetes ?**
- **Use Cases of Kubernetes**
- **Working of Kubernetes**
- **Installation of Kubernetes**

Kubernetes - Architecture

- **Understanding Kubernetes Architecture**
- **What are Kubernetes objects**
- **What are YAML files?**
- **Kubernetes Master Introduction**
- **Components of Kubernetes Master**
- **Node Components Introduction**

Pods and Services

- **What are Pods?**
- **What is deployment**
- **What are replication controller**

- stateful and demon sets

- Introduction to Kube services and its types

- Jobs

- Horizontal Pod Autoscaling

- Load Balancing

- Rolling Updates

Volumes

- What are volumes?

- Types of volumes

- Persistent volumes

- Introduction to secrets

- Taints and tolerations

- Managing stateful application

Kubernetes - Autoscaling

- Auto Scaling Introduction

- The Horizontal Pod Autoscaler

- The Kubernetes metrics registry

- Exposing metrics from your apps

- Installation and configuration Prometheus

- Understanding custom and external metrics adapters

- Tuning the Horizontal Pod Autoscaler

Logging & Monitoring

- Monitor cluster using Prometheus

- Visualize logs using EFK stack

- **Deploy jobs to run tasks to completion**

- **Manage etcd cluster**

- **Use Helm Charts**

Python

Introduction to Python

- **What are Python and the history of Python?**

- **Unique features of Python**

- **Install Python and Environment Setup**

- **First Python Program**

- **Python Identifiers, Keywords, and Indentation**

- **Comments and document interlude in Python**

- **Command-line arguments**

- **Getting User Input**

- **Python Data Types**

- **What are the variables?**

Control Statements

- **If**

- **If-elif-else**

- **while loop**

- **for loop**

- **Break**

- **Continue**

- **Assert**

- **Pass**

- **return**

List, Ranges & Tuples in Python

- **Introduction**

- **Lists in Python**

- **Generators and Yield**

- **Generators Comprehensions and Lambda Expressions**

- **Next() and Range()**

- **Understanding and using Range**

Python Dictionaries and Sets

- **Introduction to the section**

- **Python Dictionaries**

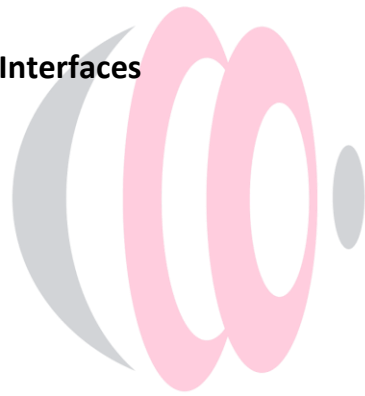- **More on Dictionaries**

- **Sets**

Python built-in function

- **Python Modules & Packages**

- **Python User defined functions**

- **Defining and calling Function**

- **The anonymous Function**

Python Object Oriented

- **Overview of OOP**

- **Creating Classes and Objects**

- **Constructor**

- **The self variable**

- **Types Of Variables**

- **Namespaces**

- **Inheritance**

- **Types of Methods**

- **Instance Methods Static Methods Class Methods**

- **Accessing attributes**

- **Built-In Class Attributes**

- **Destroying Objects**

- **Abstract classes and Interfaces**

- **Abstract Methods and Abstract class**

- **Interface in Python**

- **Abstract classes and Interfaces**